

June 3, 1998

TO: The Honorable Jackson E. Reasor, Jr.  
And  
Members of the SJR 91 Restructuring Subcommittee

FROM: The Municipal Electric Power Association of Virginia (MEPAV)

SUBJECT: Transmission Capacity; Import Constraints and Market Power

MEPAV appreciates the opportunity to provide the subcommittee and stakeholders with its views on the subject of import constraints on transmission capacity and the effects on the generation market power of the transmission system owners. MEPAV members are municipal electric distribution systems that purchase over 98% of their electricity at wholesale and distribute it to their customer-owners (the balance is generated by some individual MEPAV members). The MEPAV members are transmission dependent utilities ("TDU") in that they are completely dependent on the transmission facilities of the vertically integrated investor owned electric utility ("IOU"), within whose transmission system they are located. In this sense, the MEPAV members are like retail customers who will also be dependent on the IOU transmission systems to gain access to competing generation supplies. Furthermore, the MEPAV members have already begun to experience, in limited measure, the transition to a more competitive wholesale generation market and some of the frustrations associated with their dependence on the transmission systems of others for access to that evolving market.

Therefore, this presentation is from the perspective of MEPAV members as wholesale customers and retail suppliers, their experience in the still immature wholesale market and their perspective on these topics. These comments are directly applicable to the challenges that will be faced in the contemplated transition to a competitive market when tens, hundreds or perhaps thousands of transactions with suppliers inside and outside of Virginia are expected to occur. MEPAV members on the AEP system have, over the past year, executed only two transactions (six members) with outside suppliers amounting to approximately 450 megawatts. The total load served by AEP in Virginia is approximately 6,000 megawatts.

This subject is of paramount importance to the development of a truly competitive generation market within the Commonwealth of Virginia. It goes without saying that allowing the competitive pricing of a product without having adequate access to numerous, readily available supplies of the product would be harmful to the consumers of the product. In the electric utility industry in Virginia, transmission constraints can and do restrict access to adequate supplies of firm power and energy that would be necessary to provide a truly competitive generation market for the

citizens of the Commonwealth. This is an extremely important issue that must be addressed in any plan to allow market-based pricing of electricity in the Commonwealth.

What is a transmission constraint? It is the physical limitation of a certain transmission facility or combination of facilities, such as transmission lines and/or transformers, to carry additional load without endangering the reliability of the network. When transmission constraints foreclose or limit the ability of generators outside a utility's transmission system to reliably supply customers located within that utility's transmission system, it can significantly impact the degree of generation service competition in the area. The measure used to identify the amount of capacity available to import electricity into a transmission system from the outside is known as Available Transfer Capability ("ATC"). The FERC has required each electric utility subject to its jurisdiction to publicly post to an electronic OASIS web site the ATCs of its various interfaces with adjoining transmission systems. However, the calculation of the ATC of any given interface requires that numerous judgments and assumptions be made and incorporated into complex power flow simulations, and the "art" of making these calculations in an unbiased manner is still evolving. Therefore, even though each utility has to post the ATC of each of its interfaces with other utilities, the utility on the other side of any given interface may calculate and post a completely different ATC value for power flows in the same direction over the exact same interface. With this in mind, the power flow counting against the ATC at any point in time generally consists of prior reservations and a capacity benefit margin which is currently reserved by the transmission owner to assure the availability of import capability to serve both its native load and the load of the transmission owner's other firm customers in the event of emergency conditions. In addition to the obvious issue of how to deal with insufficient transfer capability, other issues will arise over the proper calculation of ATC for various interfaces and the proper allocation of the capacity benefit margin to existing customers who may want access to off-system generation.

How is generation market power exercised or enhanced by transmission system owners? Generation market power is exercised or enhanced by the ability of the transmission owner to benefit itself through the way it plans, constructs (or does not construct), operates and/or maintains its transmission system. Failure to increase transmission capacity through construction/rebuild of its facilities to the detriment of its transmission customers is a way to directly maintain or increase its dominance over the local generation market. Such action or inaction precludes non-discriminatory access. Vertically integrated utilities can also influence the existence of certain constraints by the way they dispatch their generation. In Virginia, the transmission owners also own the bulk of the generation; therefore, there is some capability for the owner to dispatch its generation in such a manner as to create artificial constraints, again, to its sole benefit. This is another area that should be examined in moving forward toward creating a competitive generation market in the Commonwealth. We have not investigated these specific issues regarding transmission service by Virginia utilities but are concerned that without appropriate safeguards, they can occur in Virginia and have occurred in other states.

Import constraints currently exist on at least the AEP and Virginia power systems. In May, 1997, AEP posted on its OASIS, the following statement, in part: "Our present outlook is that AEP will not be able to accommodate requests for long-term, firm north-to-south transmission service through this area" for AEP native load and other loads located in the southern West Virginia and southwest

Virginia portions of its system. As a part of their responsibility as a wholesale transmission service customer of AEP, MEPAV's members in the AEP service territory began last fall participating in the development of a load shedding plan related to the delay in the construction of additional transmission capacity for that region. AEP's Southern Transmission Emergency Procedures (STEP) program is a comprehensive plan to address capacity shortfalls that may occur due to the delay in construction of the Wyoming, WV-Cloverdale, VA 765 kV Project. These capacity shortfalls would occur at peak times in the summer and/or winter if there were a failure of one or more transmission lines in the area. In such situations, AEP's native load and wholesale customers will each shed or curtail load on an equal-percentage basis. Normally transmission capacity is planned and operated such that there is the ability to lose one line (which can be out for hours, if not days, depending on the problem) and have the balance of the system handle the load without interruption. Thus, the constraint on the AEP system for the import of electricity from outside suppliers is dependent on whether the power is coming from the north and, if it is, it cannot be currently transacted on a long-term, firm basis. AEP could exercise market power here depending on the way it operates its transmission system, dispatches its generation and/or dispatches generation purchased from other utilities.

The Virginia Power system is constrained on a permanent basis as has been pointed out many times in the restructuring discussions. It has 18,000 megawatts of load and 3,000 to 4,000 megawatts of transmission import capacity. Its generation is almost all located in its service area except for some small NUGs in adjacent utility service areas. Like MEPAV's AEP members, its Virginia Power members have in place load curtailment plans, which are to be utilized when the transmission system in a particular area becomes overloaded. However, unlike the AEP customers, wholesale customers in the Virginia Power transmission service territory are purchasing their power from Virginia Power and, thus, from generation located within this service area. In the future, should those customers wish to purchase from utilities outside of Virginia Power, there may not be enough import capacity by which to access suppliers other than Virginia Power even though their peak capacity requirements are only approximately 200 megawatts. This is where Virginia Power has market power by virtue of inadequate transmission import capacity.

One member of MEPAV receives its wholesale power service from the Allegheny Power System, which has the same constraint issues as AEP and Virginia Power.

Only the FERC and/or a future Independent System Operator ("ISO") will have the ability to see that fair, non-discriminatory and equitably priced access is afforded the non-owner transmission customers. These customers, whether wholesale, marketers, other utilities or retail, will only have the potential to realize benefits from competition if "open" transmission access to an adequate system is afforded on a basis that is truly comparable to that enjoyed by the owners themselves.

Perhaps there should be a means in the ISO by which transmission pricing, including constraint pricing, generates funds for the expansion of the system as needed for additional capacity at the right time on an engineering/planning basis with criteria for when and what to build. The ability for the transmission owner to have absolute control over, versus significant input to, system expansion decisions and/or the owner's ability to realize profits in excess of a regulated fair rate of return should be minimized. The idea of restructuring the industry is to benefit the consumer. Creating a market-

based, profit-motivated highway between the generation and the consumer would have a chilling effect on better prices over time and, perhaps, negatively affect reliability. An analogy might be what the effect on freight costs might have been following trucking deregulation had the federal government sold the interstate highway system to private investors to run for a profit with market-based pricing and many two-lane highways remaining to be upgraded to four-lane to handle more truck traffic.

It is essential that there be an independent system operator, with all emphasis possible on “independent”, to provide fair management and pricing of constraints and maximum effort to minimize constraints.

The wholesale market is small compared to the retail market. The wholesale market is immature. Only a handful of long-term, firm transactions have taken place, some of which have taken months to negotiate. During some of those negotiations it was necessary to plow new ground and in several areas: ancillary service provision details/responsibilities, what parts of system should be in transmission and what charges, in addition to base transmission, and ancillary service charges, such as metering facilities, reading and billing, etc. should apply. These issues need to be ironed out before full-scale retail competition is introduced. If you multiply these complexities by the hundreds or thousands, there is good reason to make sure that the proper mechanisms are in place to handle the details. Effective, fair and efficient competitive wholesale and retail markets are achievable, but the rules need to be more fully developed, more uniform, however, experience says that some seem to be only empirically obtainable.

MEPAV members are very concerned about the issues of import constraints and market power as they affect our ability to access the lowest cost reliable electricity for our customer-owners which is and has been our goal since our first member began providing service over 112 years ago. We feel that the major areas that need to be addressed to ensure that constraints and market power are minimized are:

- Implementation of restructuring should be contingent upon an effective and truly independent ISO
- Additional transmission capacity must be built in order for competition in Virginia to be meaningful
- Detailed technical and operational issues related to available transmission capacity must be resolved on a uniform basis and with an equitable, fair pricing methodology
- Review of the approval process to help facilitate new line construction that is necessary to relieve existing and future constraints

MEPAV stands ready to work with the SJR 91 Restructuring Subcommittee and other stakeholders to achieve the goals set out by the Subcommittee. Please feel free to contact us with questions or if you need further information.